tech.mit.edu



WEATHER, p. 6 TUE: 20°F | 10°F WED: 33°F 24°F Mostly cloudy

THU: 29°F | 5°F

Tuesday, February 3, 2015

### Talks on climate to promote a discussion

Volume 135, Number 1

Talks will lead to a 'climate action plan' by June 2015

> By Jennifer Switzer STAFF REPORTER

The MIT Climate Change Conversation Committee is seeking community engagement in the Conversation on Climate Change, an Institute initiative to discuss what committee chair Roman Stocker said has the potential to be the "biggest problem [MIT] has ever contributed to solving."

In a survey of the MIT community taken last November, the committee found that MIT has a "strong interest in taking action on climate change," Stocker told *The Tech*. The survey, which received more than 8,000 responses, was a first step for the initiative and helped shape its next stage, an event series which kicked off Jan. 21 with a talk by Dr. Larry Linden PhD '88.

Linden is the founder of the Linden Trust for Conservation, which is working to promote a federal carbon tax. In his talk, he outlined his personal journey to climate activism, and explained why he believes climate change is "the most critical issue facing humanity today."

Quoting last year's climate change report by the American Association for the Advancement of Science, which highlighted the risk of "abrupt, unpredictable, and potentially irreversible changes with highly damaging impacts" if the current carbon dioxide emissions

Climate, Page 10



A passerby inspects a Lobby 7 hack on Sunday afternoon which reads "TPB Lives!" in response to the return of torrent hosting website The Pirate Bay.

### Tsarnaev trial jury **selection staggers**Defense team asks judge to relocate

trial as potential jurors are probed

By Ray Wang and Sanjana Srivastava

Day 2. Seated at one end of the long wooden table, potential juror 40 recalls the events of April 2013 in a weary voice. Facing nine attorneys, the judge, and alleged Boston Marathon bomber Dzhokhar Tsarnaev, she remarks:

"Those were a long couple days." The graying woman spent time in Nepal with the Peace Corps and is an activist for education and LG-BTQ rights - forgiving and openminded, she's the kind of person the defense would want deciding their client's guilt and, most likely, fate. The lawyers listen attentively as Judge George O'Toole probes her ability to serve on a jury, and so far she checks out. They and the many observing reporters hope that she won't be another scratch in a long string of disappointing candidates.

But when Judge O'Toole brings up Martin Richard, the eight-yearold boy killed in the bombing, she chokes up. Through her tightening throat, she is able to go on a bit longer about her colleagues - marathon runners who could have been among the 264 casualties - and about Richard, whom she's met. A resident of his neighborhood, she conjures up an image of his memorial and expresses surprise at her summons because she's been "personally affected."

O'Toole, alarmed by this spill of emotion, asks her to step out for a bit. She is not called back.

"Oh, she would have been great!" a reporter in the media viewing room sighs.

### The death penalty is at stake

The process of scrutinizing potential jurors in person is called "voir dire," and it's often considered the most important phase of a trial. In this case, where 17 of the 30 charges against Tsarnaev could result in the death penalty, the parties have to find 18 citizens who are both impartial and "death-qualified," meaning that they deem the death penalty and life imprisonment to both be on the table. That's why weeks and weeks are dedicated to jury selection when the stakes are this high.

Tsarnaev, Page 14

### MIT being sued for 2009 suicide

A wrongful death lawsuit filed against MIT by the family of the late Sloan doctoral student, Han Duy Nguyen, advanced toward a possible trial last month when a Middlesex Superior Court judge denied MIT's request to dismiss the suit on the basis of a technicality. The claim, filed in 2011, alleged that Institute officials were negligent with regard to his mental health before his suicide in

In June of that year, Nguyen sent a "potentially offensive" email to a faculty member who was considering taking him on as a research assistant, according to The Boston Globe. Birger Wernerfelt and Drazen Prelec, two of Nguyen's professors who had recommended him for the position and were among a few who had concerns about his well-being, agreed to confront him. Wernerfelt called Nguyen and chastised him angrily for his behavior. A few minutes later, Nguyen jumped off Building E19 and fell six stories to his death.

MIT, the two professors, and an associate dean, who were all listed as defendants in the law-

suit, have denied culpability. To limit its liability, MIT attempted to dismiss the claim by arguing that Nguyen should be classified as an employee, but his family's attorney pointed out that MIT and other schools have maintained that graduate students are not employees in order to avoid unionization.

–Sanjana Srivastava



A mysterious Stonehenge hack stands in front of Kresge this past Thursday. MIThenge, a biyearly event in which the sun lines up with the Infinite Corridor, occurred the following evening.

### the tech's YEAR IN REVIEW, pp. R1-R8

### A note to our readers

lished a paper twice a week for over 50 years, and for 20 years our website has just been the online face of the print edition. Starting this year, we're doing something different.

Instead of structuring our journalism around our print schedule, we're going web-first. We will publish articles as we write them on an all-new website that will debut in February. Our print edition will come out once a week on Thursdays and will include stories that first appeared online and have been updated with new information.

This new publishing model will allow us to release content in a more timely fashion, update stories as they develop, and be more relevant

The Tech is heading in an exciting to campus discussion. We can't new direction in 2015. We've pub- wait to try out new multimedia and interactive features on our custom platform. And we hope this change will also let us develop more substantial stories of interest to the MIT community.

We will still have two print issues a few weeks during the year – including Feb. 3 and Feb. 6 in the first week of the semester. But most weeks, starting Feb. 12, the printed newspaper will be available in its usual locations on Thursdays. Look for a link to a public beta version of our website at our usual homepage, tech.mit.edu, early next week.

And if you think any of this sounds exciting, we'd love to have you join us - email join@tech.mit. edu for more information.

### **IN SHORT**

Classes start today! Registration must be submitted to the Registrar's Office by 5 p.m. on Friday, Feb. 6. Failure to do so may result in a \$50 late fee.

Ouarter 3 PE classes start Monday, Feb. 9. Registration for PE classes closes at 1 p.m. Wednesday, Feb. 4.

The GradRat February Ring Delivery Event will be at 5 p.m. Wednesday, Feb. 4, in the Bush Room (10-105). Students who ordered their rings can pick up their rings here, but all graduate students (and families) are welcome if they want to browse the rings or have any questions.

Send news information and tips to news@tech.mit.edu.

### **CAMBRIDGE BLUES**

Reflections on playing basketball in England. CAMPUS LIFE, p. 8

### **ALONE THIS SEMESTER?**

Check out your fellow student's failure to find love. CAMPUS LIFE, p. 8

### SINGING ABOUT MURDER?

Check out our photos of The Lucky Stiff. PHOTO, p. 9



### **STUDENTS FROLIC IN THE SNOW**

See what your friends did with their day off. PHOTO, p. 12

### **DEFENDING FREE SPEECH OR ISLAMOPHOBIA?**

Tech columnist writes about Charlie Hebdo. OPINION, p. 2

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## The *Charlie Hebdo* shootings and Islamophobia

### Dissecting France's response to the tragedy

By Archis R. Bhandarkar

Since the attacks on the French satirical magazine *Charlie Hebdo*, people of all ages and beliefs have stood together to condemn the terrorists' actions in what has proved to be an unprecedented global response. The hashtag "#JeSuisCharlie" quickly erupted on Twitter, trending at a peak of 6,500 tweets per minute the day following the massacre. On the Sunday after, presidents, prime ministers, and an estimated one million individuals participated in a solidarity rally that spanned the streets of Paris, all in support of *Charlie Hebdo*.

But is *Charlie Hebdo* deserving of the overwhelming support it has received from the global community over the past couple of weeks? The search for moral clarity in the wake of the tragedy isn't as easy as some have made it out to be.

For sure, the global community is right to condemn the terrorists who perpetrated the *Charlie Hebdo* shooting. No argument can justify the killing of 12 individuals, no matter how offended a group may be. But what do we mean when we chant "Je Suis Charlie" in unison? With whom are we standing in solidarity?

A quick survey of *Charlie's* portfolio raises doubts about its image as a righteous crusader for the freedom of speech. From crude, stereotyped depictions of Arabs and Africans to several drawings of the Prophet Muhammad in naked, insulting poses, *Charlie Hebdo's* brand of satire is rife with racially charged and extremely insensitive undertones. A line must be drawn between satire that seeks to reveal hypocrisy and inform, and the kind of crass mockery that serves to provoke and insult.

And let's not forget the broader context. The periodical exists in a France that has seen growing tensions between the majority of its population and already marginalized Muslim minorities. Following a similar turban ban passed in 2004, an act passed by the French Senate in 2010 prohibited the use of face-covering head gear like the burqa. To date the law has been upheld by the European Court of Human Rights despite continuing to infringe on some of French Muslim citizens' right to freely exercise their religion.

Yet the 2010 ban on burqas is only the tip of the iceberg when it comes to growing Islamophobia in France. Countless French mosques have been subject to vandalism and graffiti. And in 2008, 148 Muslim graves in France's biggest WWI cemetery in Arras were desecrated with hateful slogans. *Charlie Hebdo* has often reflected and amplified this underlying racial prejudice already present in the backdrop of French society.

Tensions have only worsened since the shootings. On the day following the incident, three training grenades were thrown at Mosquee de Sablone and an explosion battered down a kebab shop in the small town of Villefranche-sur-Saône. Compare this to the response in Australia after similar shootings took place in Sydney in mid-December. An example for the rest of the world, thousands of Australians took to Twitter where the hashtag "#illridewithyou" shortly started to trend in a unique show of solidarity with the Muslim community.

So the question emerges: to be *Charlie Hebdo* or not to be *Charlie Hebdo*? The actions of the terrorists that took several lives

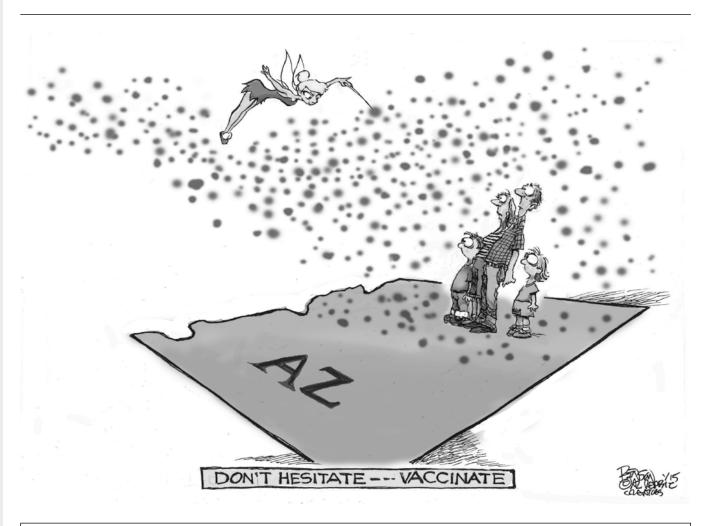
that day should surely be condemned, but we must not lose ourselves to the very kind of blind hatred and bigotry that we condemn these acts for. In Sydney and Paris, the global community has seen two different aftermaths of horrible acts of violence. And, it's entirely a choice in perspective that made the difference between these two reactions. We must recognize the nuances that surround these tragedies and continue to eschew the "you're either with us or against us" stance that had defined U.S. foreign policy for so long.

Our solidarity with *Charlie Hebdo*'s right to free speech must not extend to solidarity with the callousness and intolerance that has defined so many of their cartoons. Our censure for the terrorists' actions must not extend to censure of the innocent adherents of a religion of peace. This is the standard of tolerance and understanding that we and the rest of the global community must uphold ourselves and each other to.

As President Obama remarked to the U.N. General Assembly in 2012, "The future must not belong to those who slander the prophet of Islam. Yet to be credible, those who condemn that slander must also condemn the hate we see when the image of Jesus Christ is desecrated, churches are destroyed, or the Holocaust is denied."

It is our moral imperative to follow the path carved out by those in Sydney and understand that things aren't either white or black, that the actions of a few extremists can't define an entire group. It's just not as simple as Je Suis Charlie or Je Ne Suis Pas Charlie

Archis R. Bhandarkar is a member of the Class of 2018.



### **OPINION POLICY**

**Editorials** are the official opinion of *The Tech*. They are written by the Editorial Board, which consists of Chairman Will Conway, Editor in Chief Leon Lin, Managing Editor Anthony Yu, Executive Editor Tushar Kamath, and Opinion Editor Claire Lazar.

**Dissents** are the signed opinions of editorial board members choosing to publish their disagreement with the

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Letters, columns, and cartoons must bear the authors' signatures, addresses, and phone numbers. Unsigned letters will not be accepted. *The Tech* reserves the right to edit or

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**Guest columns** are opinion articles submitted by members of the MIT or local community.

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TUESDAY, FEBRUARY 3, 2015 THE TECH 3

# 

# SARCASM, MATH, AND LANGUAGE by Randall Munroe

### [1479] **Superbowl**

I DON'T KNOW MUCH ABOUT SPORTS, WHICH CAN BE CULTURALLY ISOLATING. SO IT'S TEMPTING TO GET VOCAL AND DEFENSIVE ABOUT NOT FOLLOWING THEM.

CARING ABOUT SOMETHING MAKES PEOPLE WINERABLE, SO NOT CARING GIVES YOU POWER. BUT I KNOW THE THINGS I'M INTO DON'T ALWAYS SOUND



INTERESTING TO 100% OF THE PEOPLE AROUND ME,

AND IT MEANS A LOT WHEN THEY SOMETIMES TRY TO LISTEN ANYWAY-AND MAYBE EVEN FIND THEMSELVES SHARING SOME OF MY EXCITEMENT!

SO WHILE EVERYONE IS GOING ON ABOUT THE SUPER BOWL ON SUNDAY, LET ME TELL YOU WHAT IZL BE DOING:



LISTENING! HOORAY FOR FRIENDSHIP! ALSO, EATING SNACKS. HOORAY FOR SNACKS!

ball' and acting excited to find someone else who's interested, then acting confused when they try to clarify. My hobby: Pretending to miss the sarcasm when people show off their lack of interest in football by talking about sports-

### RESEARCH I PROBLEMS

PROBLEMS MOST ACADEMICS WISH THEY HAD

I DON'T HAVE TIME TO WRITE PAPERS

BECAUSE I HAVE TOO MUCH GOOD DATA.

I LOST MY GRANT MONEY

BECAUSE I DIDN'T SPEND IT BY THE END OF THE FISCAL YEAR. I'VE RUN OUT OF WALL SPACE

FOR ALL MY HONORARY DEGREES.

MY STUDENTS

ARE SO GOOD

IT TOOK FOREVER

FOR THE TECHNICIAN TO FIX MY MILLION DOLLAR MACHINE.

I HAD TO MOVE ALL MY FILES

BECAUSE I GOT YET ANOTHER NEW LAPTOP.

IT'S HARD FOR ME

TO CHALLENGE THEM.

I DON'T GET AIRLINE MILES ON THIS TRIP

I HAVE TO DRESS UP **EVERY DAY** 

I HAD TO TURN DOWN THAT INVITED TALK IN PARIS

BECAUSE THE CONFERENCE IS PAYING FOR IT.

IN CASE REPORTERS COME TO INTERVIEW ME ABOUT MY RESEARCH.

MY INSTITUTION

BECAUSE MY PAPER IS ON EMBARGO AT NATURE.

I AM TOO BUSY

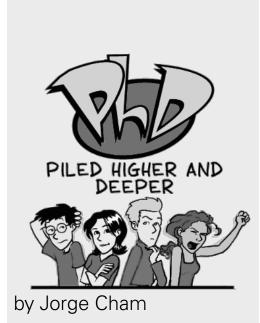
IS TOO CROWDED.

WON'T GIVE ME TWO PRESS RELEASES THIS MONTH.

TO READ COMICS ON THE INTERNET. FUNFUNFUNFUNFUN

MY LAB

WWW.PHDCOMICS.COM



# FUNFUNFUNFUNFUNFU

### Sudoku I

Solution, page 6

1			4	6			3
				9	8		
	7			8		2	
6		1	5		4	<b>2</b>	
<b>6 5</b>							2
	3	9		2	1		<b>2 5</b>
	<b>3 6</b>		9			5	
		3	2				
9			6	7			4

Instructions: Fill in the grid so that each column, row, and 3 by 3 grid contains exactly one of each of the digits 1 through 9.

### Sudoku II

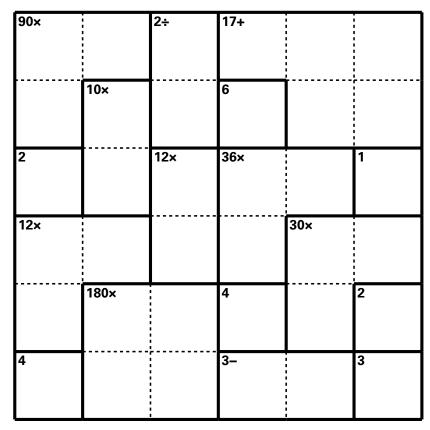
Solution, page 6

2							4	
	7		5			2		
	8		1	4		2 9 6		3
		3	2	5		6		9
				9				
9		7		6	3	4		
9		9		2	4		5	
		8			5		<b>5</b>	
	6							4

Instructions: Fill in the grid so that each column, row, and 3 by 3 grid contains exactly one of each of the digits 1 through 9.

### Techdoku l

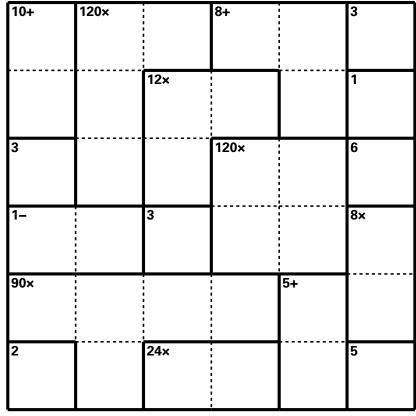
Solution, page 6



Instructions: Fill in the grid so that each column and row contains exactly one of each of the numbers 1-6. Follow the mathematical operations for each box.

### Techdoku II

Solution, page 6



Instructions: Fill in the grid so that each column and row contains exactly one of each of the numbers 1-6. Follow the mathematical operations for each box.

### Saturday Stumper by Anna Stiga

### **ACROSS**

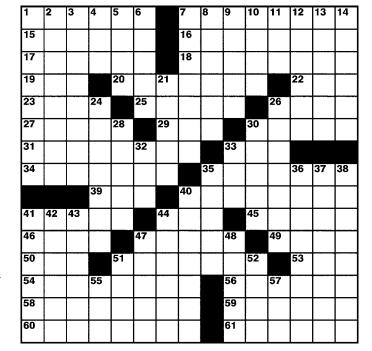
- 7 Specialty of Beverly Hills' Sprinkles shop
- 15 Unchanging
- 16 Close encounter
- 17 Most frequently used Atlantic storm name since 1959
- 18 Enclave or Encore 19 Retirement venue
- 20 Rear-axle neighbor
- 22 Plywood source
- 23 Dietary staple of Colonial
- America 25 They're short on material
- 26 Look forward to
- 27 Historical period
- 29 Letter to Liverpudlians
- 30 Under a strain
- 31 Traditional rebel
- 33 Work (out)
- 34 Sawhorses, essentially
- 35 Engages oneself
- 39 With 47 Across, knighted coach on The Voice UK
- 40 Iconic Kraft Foods mascot

- 41 Not grounded?
- 45 Place under water
- 46 Frat letters
- 47 See 39 Across
- 49 "Physician, heal thyself" book
- 50 Calabria, vis-à-vis Italy
- 51 Always going
- 53 Popular pizza topping in Japan
- 54 Check from the government
- 56 Ski-boot binding clip
- 58 Perfect
- 59 Overly sensitive
- 60 Pabst's Pablo was one 61 They're seen on Canadian silver dollars

### **DOWN**

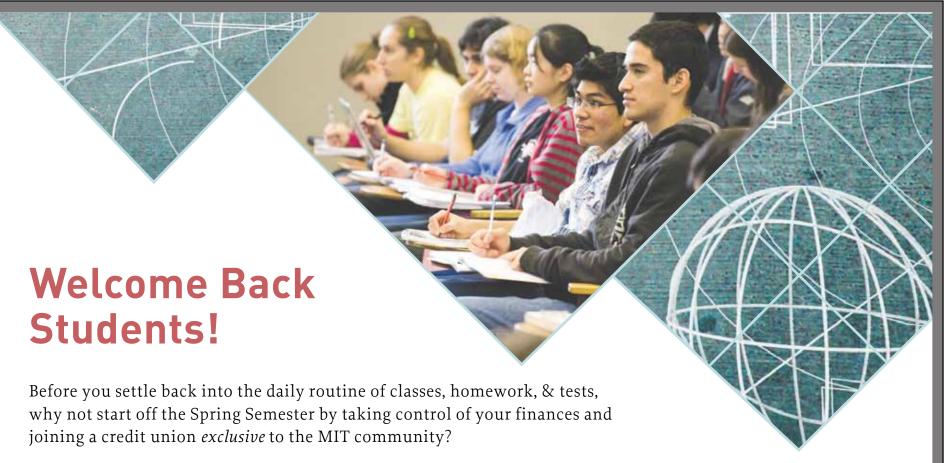
- 1 Panini need
- 2 Getting a check from the government, perhaps
- 3 Hazard 41 Across
- 4 "Visit from St. Nicholas" preposition
- 5 Kind of crossbar

- 6 Boil
- Hatfield
- 8 Volunteer
- 9 Low class
- 10 It's south of Limerick
- 11 Small six-footer
- 12 Youngest Cooperstown electee
- 13 Draw
- 14 Boil
- 21 Assesses, with "up"
- 24 Chamber groups
- 26 Autograph requests, effusive compliments, etc.
- 28 International Date Line crosser of 2011
- 30 Less zesty
- 32 Standout
- 33 Stand out
- 35 Good Seasons freebie offering
- 36 Literally, "by signaling"
- 37 Ralph Ellison alma mater
- 38 Ravens' rivals
- 40 Buyer of HotJobs.com in 2010



- 41 Court proceeding
- 42 ABC Sports' "Greatest Athlete of the 20th Century'
- 43 Tropical-country custom
- 44 What strong acids dissolved in water do
- 47 Matt's Elysium adversary
- 48 The origin of civilization
- 51 Insensitive
- 52 Court proceeding
- 55 \_\_ pocket
- 57 Yarn-hair doll turning 100 in

THE TECH 5 Tuesday, February 3, 2015



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**WEATHER** 

### Winter weather continues

By Casey Hilgenbrink

It sure has been a snowy week yesterday ended Boston's snowiest seven-day period since records began in 1891! By 1 p.m. yesterday, Boston had received 34.2 inches of snow since Jan. 27, beating the old record of 34.1 inches set in the week leading up to January 8, 1996. Most of this snow came from last Tuesday's powerful blizzard, which dropped 24.6 inches of snow at Boston Logan Airport. Yesterday's storm also contributed 9.9 inches toward the record as of 1 p.m., with snow still falling into the evening

Today, the weather is quieter, albeit much colder, as an area of high pressure settles in over the eastern U.S. Afternoon temperatures will struggle to make it out of the teens, with a high temperature of 20 °F (-7 °C). Tomorrow should be warmer, with a high temperature of around 33 °F (1 °C). Our next chance for snow is tomorrow night through Thursday, although at this time, there's a lot of uncertainty in the timing and amount of snow as different weather models struggle to agree on a solution for Thursday's potential snowfall. Regardless, expect frigid temperatures to return by the end of the week, with a high temperature on Friday in the upper  $10s \, ^{\circ}F \, (-7 \, ^{\circ}C)$ .

### **Extended forecast**

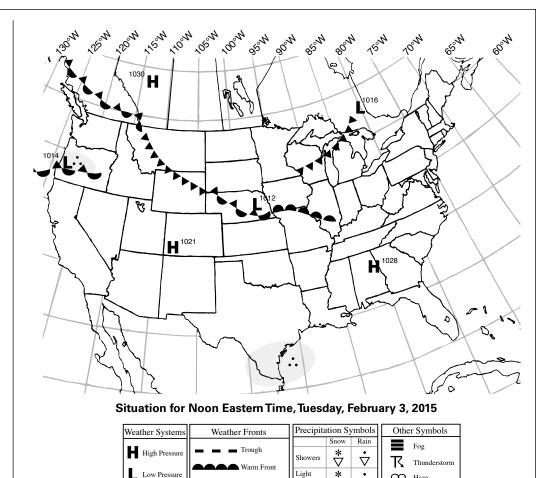
**Today**: Sunny, with a high of 20 °F (–7 °C). In the morning, northwest winds at 10 mph with gusts up to 20 mph. Winds becoming west by afternoon at 5–10 mph.

Tonight: Partly cloudy, with a low of 10 °F (–12 °C). Winds from the southwest at 5–8 mph.

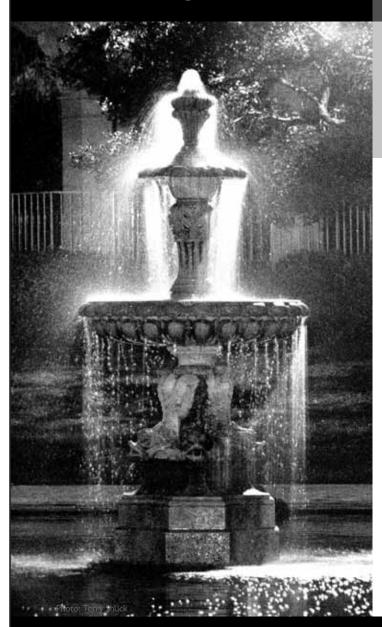
**Tomorrow:** Mostly cloudy, with a high around 33 °F (1 °C). Winds from the southwest at 5–10 mph. Chance of snow overnight.

Thursday: Overcast, with a high in the upper 20s °F (–1 °C). Chance of snow.

Friday: Partly sunny, with a high in the upper 10s °F (-7 °C).



### STILL THIRSTY?



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### Solution to Crossword

From page 4

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I N A R U T O N E O N O N E
A R L E N E S P O R T U T E
B E D G A S T A N K F I R
A L E S M I N I S F A C E
T I M E S Z E D T A X E D
T E E N A G E R P A N
A F R A M E S C O M M I T S
T O M M R P E A N U T
A T S E A I O U R I N S E
C H I S J O N E S L U K E
T O E N O N S T O P E E L
I R S A U D I T F L A N G E
O P T I M I Z E T E N D E R
N E A R B E E R C A N O E S

### Solution to Sudoku I

### Solution to Techdoku I

### Solution to Sudoku II

### Solution to Techdoku II from page 4

6	5	4	2	1	3
4	3	2	6	5	1
3	2	1	5	4	6
5	4	3	1	6	2
1	6	5	3	2	4
2	1	6	4	3	5

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8 THE TECH Tuesday, February 3, 2015

### **ACROSS THE POND**

### Cambridge blues

### How basketball shaped my study-abroad experience

**Bv Nick Prus** 

As the team captain of the Cambridge Blues Basketball Club pulled up to the rendezvous point in the heart of Cambridge, I and three other 2-meter gentlemen watched the cheeky fellow, grin in tow, pull up and declare: "All that was left boys. Hop in." I was fortunate enough to play for the Cambridge Blues Basketball Club during my full year abroad at King's College, Cambridge University, and the memory of that baby blue Fiat being pushed to its physical limits is something that I will cherish forever. The only thing missing from the car was a big red nose and a flower that squirted Lucozade (we had the comically large shoes, after all).

Of course, we were not strangers to less than favorable conditions; we were playing basketball in England, after all. When the local gym had no reasonable time slots available for us to practice the day before games, we managed to snag the elusive 7

a.m. slot and practice under the lullaby of Jay-Z. And another time, a horse and carriage were trotting peacefully on the highway, taking up both lanes while we were stuck behind them trying to get to a game on time. I should also mention that our coach was a world-renowned physicist who wasn't always able to attend our

### We won a lot of games and lost a few as well. but those moments almost seemed secondary.

We were a group that came together to play our passion, and we loved every moment of it. We also met off the court and brought together the different cultures rep-

resented on the team. When we had a pasta party before the game, we called in our resident Italian to make us his signature meat sauce. When I was called a "wanker" during one of our games, I consulted the Englishman on the team to translate. When we didn't need to hear about the Seattle Seahawks winning the Super Bowl last year, the Seattle native on the team made sure we were well informed.

We won a lot of games and lost a few as well, but those moments almost seemed secondary. What we really looked forward to was a night at the Hawks' Club, enjoying a post-game meal unlike any other. The Hawks' Club, exclusive to varsity athletes, was where hearty meals were served to the heartiest of Cambridge students. A favorite of the team was the farm burger: a grilled chicken breast with a burger patty, an egg, and bacon. In between stuffing our faces in the historic living hall, we would be interacting with the rest of the athletes around Cambridge, asking them what they'd done earlier to warrant their meal. We could have fun anywhere, but somehow we always knew we'd be meeting at the Hawks' Club at some point.

There's plenty of opportunity for grandeur when traveling abroad. I was able to go to one of the best parties in the entire world, the St. John's May Ball, listen to the King's College choir, interview for a job in London, gaze on the lights of Paris, eat chestnuts in Nuremburg — you name it. But while those things are nice, they're not what I keep going back to. I remember lifting in the weight room with my buddy and accidentally tipping over the water cooler. It is the little moments that make studying abroad more than tourism. When I wear my Blue jacket, an award given to me for performing at the highest level for the university, I don't think of the towering spires of Cambridge against a blue sky. What I do think of, though, is a bunch of clowns stuffed into a blue Fiat, driving into London to throw a ball through a hoop.

### Let's fall in love

### Does it really take just 36 questions to be head over heels?

By Jing Lin

How hard is it to be in love with a complete stranger? According to Stony Brook University psychologist Arthur Aron, it's as simple as a 90-minute, 36-question session. In his study, pairs of heterosexual strangers sat in the same room and asked each other a series of increasingly personal questions that fostered closeness. Several of the 33 pairs went on dates right after the experiment and one pair went to the altar six months later and invited the researchers to attend.

I don't find the research that surprising. Each of us can find someone we're attracted to any place in the world. I don't think there is ever anything unconditionally special about someone else. There is no 'one,' but there can be someone you choose to

A few days ago, I was at Next House studying with two close friends, "Rachel" and "Aaron." While a few others intermittently dropped in and out of the conversation, we were the three who staved throughout the night. I'll confess: our experiment deviated from the study right off the bat. For starters, we were a trio rather than a pair. We didn't go through every question. We skipped around and chose not to answer some questions that we couldn't think of answers to. Furthermore Rachel had done some of the questionnaire before and it was her idea that night to ask the questions.

We started off the night with a light question, #5: "When did you last sing to vourself? To someone else?" I sang yesterday in the shower, I said. Both Aaron and Rachel said they sang in their rooms vesterday.

We then skipped to #13: "If a crystal ball could tell you the truth about yourself, your life, the future or anything else, what would you want to know?" I said I wanted to know everything about what my children were like. Rachel said she wanted the optimal prime factorization algorithm so she could crack every cryptographic code in the world. Aaron said he wanted to know what profession he would pursue. Having known the two for a while, I would say their responses were in line with the people I thought they were.

We moved onto #18: "What is your most terrible memory?" Rachel went first. She said her worst memory was when she was four and on an annual family drive to Maryland to visit relatives. Along the ride, Rachel and her family decided to freshen up at a rest stop. It was here that Rachel's dad lost her in a crowd. Rachel panicked and ran back into the restroom area to search for her dad, to no avail. She then tried the parking lot, but because there were over a hundred parking spots, four-year-old Rachel had no recollection of where her parents had parked their car. So she took a seat on the pavement and cried. A sweet couple (who had met each other without Arthur Aron's help) took Rachel to a security guard, who blared over the intercom: if you've lost her daughter, she's by the McDonalds. As soon as they heard the announcement, Rachel's parents came racing over and took her into their arms. Her mom never let her dad forget that day. She would harangue him about losing Rachel.

I went through my moment. I was driving home from school with my dad one night. It was around 9 p.m. and I was ex-- socially, academically, and physically.

ued the story: I got home, showered, sang a song, went to bed, and was fine the next

Aaron was the one who unfortunately shared the worst experience. When he was young, his mother, who was a devout Buddhist, told him she regretted starting a family rather than becoming a monk. While Aaron is now on terms with what she said, I personally didn't think it was appropriate. However, perhaps the most memorable

### Several of the 33 pairs went on dates right after the experiment and one pair went to the alter six months later and invited the researchers to attend.

At a stoplight, my dad turned to me and said, Jing, your mother and I are buying life insurance. Those words forced me to consider the day when my parents are both dead and I'm alone because a lot of my relatives don't speak English well, and I can't relate to any of them. Just the thought caused me to despair. I could tell the story was becoming too dark because they were both silent. To lighten the mood, I said I would have to do my laundry, clean my house, file my taxes, live my life, and make my food. That'd be terrible. I already barely made it through IAP without a meal plan by ordering from Dominoes every other day. I joked that I would not be able to survive 20 years from now. They laughed and I continquestion we answered that night was #20: What does friendship mean to you?"

Rachel said she considered someone a friend if she could maintain a natural flowing conversation with said person after a significant time apart. Aaron said his friends were people whom he didn't feel guilty ranting about his life to. As for me? I said friends were people more precious than romantic partners. You think more carefully about who you want to start a friendship with than who you want to go on a date with.

We called it a night after going through a few more questions. In the end, I wouldn't say we were in love, though we did become closer to each other.

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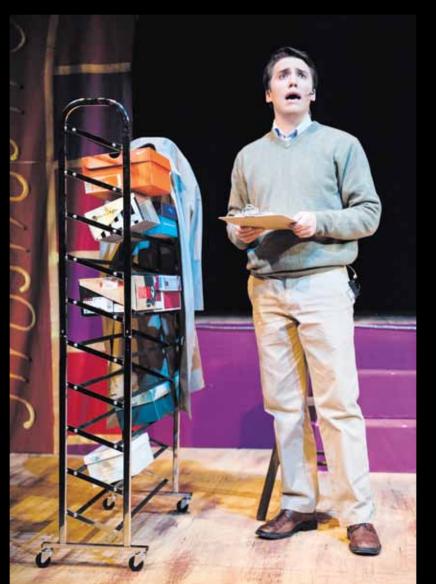
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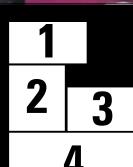
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### MIT Musical Theater Guild Presents Lucky Stiff

1. Vinnie DiRuzzio (Joshua B. Scherrer '18) and Dominique Du Monaco (Allison E. Hamilos G) attempt to steal diamonds at gunpoint during a dress rehearsal of the MIT Musical Theater Guild's production of *Lucky Stiff*. The musical comedy follows shoe salesman Harry Witherspoon as he takes his dead uncle's body on a tour of Monte Carlo in accordance with his will. Shows continue this Thursday through Saturday at 8 p.m. in La Sala De Puerto Rico on the second floor of the Student Center.

2. Harry Witherspoon (Michael A. Greshko G) sings about his life as a shoe salesman.

3. **Dominique Du Monaco (Allison E. Hamilos G)** performs during "Speaking French."

4. Harry Witherspoon (Michael A. Greshko G) tries to present his dead uncle's body (Matthew T. lovino '17) as alive and well to passersby.

Photography by Alexander Bost





Tuesday, February 3, 2015 10 THE TECH

### MIT affiliates named AIAA Fellows

MIT Aeronautics and Astronautics Professor David Miller ScD '88 and Lincoln Laboratory Director Eric D. Evans have been appointed Fellows of the American Institute of Aeronautics and Astronautics (AIAA). The AIAA, as stated on its website, is "the world's largest technical society dedicated to the global aerospace profession."

Nominees for the honor of Fellow must be "individuals of distinction in aeronautics or astronautics," who have made "notable valuable contributions" to the field. Each nominee must receive five references from other AIAA members, one of whom must be a board member, section

chairperson, committee chairperson, or Fellow.

Miller, a professor of Aeronautics and Astronautics, holds a bachelor's degree, master's degree, and PhD from MIT. He has been an AeroAstro professor since 2006, occasionally leading the department's capstone course. Miller holds the NASA Group Achievement Award, a NASA Office of Aeronautics and Space Technology Commendation, and the NASA Manned Flight Awareness Team Award. He works with MIT's Space Systems Laboratory, where he conducts research on distributed satellite systems, modular and multifunctional spacecraft, nextgeneration space telescopes, space-based interferometry, and active control of dynamic structures. He was Director of MIT's Space Systems Laboratory until March 2014, when he was appointed as NASA's Chief Technology Officer.

Evans, Lincoln Laboratory Director since 2006, received his bachelor's, master's and doctoral degrees from Ohio State University. He led the Laboratory's Air Defense Techniques Group and the Air and Missile Defense Technology Division before becoming director. Evans is responsible for the Laboratory's "strategic direction and overall technical and administrative op-

erations." Under Evans, Lincoln Laboratory develops advanced technology and prototypes systems for national security needs. Evans is also the Vice Chair of the Defense Science Board, an advisor to the U.S. Strategic Command Senior Advisory Group, a member of the Massport Security Advisory Council, and President of the National Consortium for Graduate Degrees for Minorities in Engineering and Science. He is an Institute of Electrical and Electronics Engineers (IEEE) Fellow and a recipient of the M. Barry Carlton Award from the **IEEE Aerospace and Electronics** Systems Society.

—Karia Dibert

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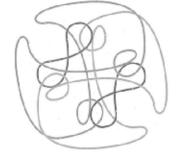






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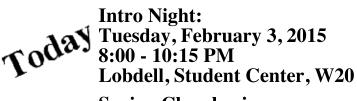
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### **Events to** focus on climate

Report expected by graduation

Climate, from Page 1

trend were to continue, Linden characterized climate change as potentially catastrophic.

Linden's talk, which he himself described as "provocative," was intended to stimulate discussion.

Stocker said that "having Dr. Linden's talk as a kick-off event appeared to be a good 'motivator' for the conversation, to generate engagement, provoke, and ignite discussions on the role that we can play at MIT."

The event series will continue throughout the spring, presenting the MIT community with various ways of taking action against climate change.

Outlining future events, Stocker said that "there will be one event in which divestment is debated, one event in which a panel of experts discusses climate change communication and the role of science, and one event in which we explore what MIT is doing in terms of its campus operations."

According to Geoffrey Supran, a graduate representative on the committee, additional events will place particular emphasis on ideas that the MIT community has expressed interest in through the survey and through the Idea Bank on the Committee's website.

The Committee plans to poll the community on which climate actions it would like to see MIT take as the event series comes to a close in April. The results of this second survey will directly feed into the Committee's final report, which will be submitted to President L. Rafael Reif by Commencement this

Supran would like to see MIT continue its climate change discussion beyond this final report, however. He hopes that "by embracing the diversity of perspectives and expertise across our campus, the [Conversation on Climate Change] will be the foundation for an MIT Climate Action Plan.'

For now, though, the Committee is focused on gathering input from the community, which Supran says will be essential to the conversation's success.

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Tuesday, February 3, 2015

The Tech 11

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The Instituoters, a flute ensemble conducted by Sue-Ellen Hershman-Tcherepnin, performed in Lobby 10 on Thursday evening.

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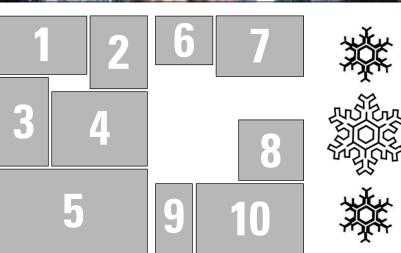


### Snowpocalypse '15

Photography by Alexander Bost

- 1. Students throw snow at each other in Killian Court. The storm dumped two feet of snow on Boston and forced MIT to close from early Tuesday morning until Wednesday evening.
- **2.** A student with a helmet-mounted GoPro camera targets his friend with a snowball in Killian Court.
- **3.** A jogger runs down the middle of Mass. Ave. during the snowstorm.
- **4.** Heavy winter clothing was scarce among students outside of EC.
- **5.** Nicholas W. Fine '16 was one of several participants who found winter clothing burdensome and unnecessary.
- **6.** A shirtless student runs away from a snow-throwing friend in the midst of the fun.
- 7. Casie S. Chen '17 and others dance on top of one of the picnic tables outside EC.
- **8.** The snowball fight moved from Killian Court to the EC Courtyard where the fun continued
- **9.** A laptop and speaker system were brought into the EC Courtyard for music.
- **10.** A student stands triumphantly on a statue in Killian Court.











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### Court struggles to select impartial jury

### Many potential jurors have connections to the marathon bombing

Tsarnaev, from Page 1

It's O'Toole's job to examine every potential juror's questionnaire answers and then call them into the courtroom to explore their background and moral convictions. However, he often finds himself needing to not only question the jurors, but also handhold them through the judicial process. He has had to rehash his "innocent until proven guilty" bit and hammer into the jurors that the decision must be based on factual evidence presented in court and not on any preconceptions.

Regardless of how willing jurors may seem to set aside their opinions and hear evidence from both sides, they might have subconsciously shifted the burden of proof onto the defense — a deal breaker. It's the government's responsibility to fully convince the jury of the defendant's guilt, and if they fall short, a verdict of "not guilty" is required.

### Legal jargon lost on potential jurors

As elaborate as their strategies may be, as experienced in the law as they are, O'Toole and the attorneys often appear to be grasping for ways to make these points clear to laypeople.

Even some of those who claim that they could rule Tsarnaev "not guilty" if the government didn't prove its case seem like they're just going through the motions.

Another potential juror — a well-spoken recent college graduate who studied terrorism in the Middle East — said he would make his decision "based on the facts" and might change his mind from his existing opinion that "there's guilt there," hinting that he would default against the defendant. Sensing a red flag, O'Toole asked if the juror would require evidence to change his current position. The juror said yes, not even realizing that he'd violated the basic principle of presumed innocence.

The lawyers' eyes darted around the table. "Want to keep going?" someone whispered. A subtle signal to the judge, and the potential juror was excused.

s excused. Another hope out the window.

The one thing beyond doubt is that in the eyes of many potential jurors, even those who haven't been eliminated, the trial is already over. Many jurors sit down, bearing intense personal feelings about this case, apparently not understanding all of O'Toole's admonishments that "the government has the burden of proof" and "we still need to determine guilt or innocence."

One juror, a frank, aging old woman, completely threw O'Toole off when she told him bluntly that she didn't even know "not guilty" was an option in this case and that she thought she was there to decide between life and death. The judge, flustered, continued to ask if she could vote the defendant innocent if the evidence against Tsarnaev was not convincing. Chuckling, she looked around the table and quipped, "Where's the prosecution? You're killing me!" And a dig at the defense: "I can't imagine not being convinced by the evidence."

### 'Mental exercises' have no legal meaning

One defense attorney, the whitehaired, charismatic David Bruck, has been increasingly concerned about potential jurors' preconceptions. To him, the hypothetical situations used to tease out candidates' biases are "mental exercises, a make believe," he said on the fifth day of voir dire. "[The jurors] can tell you anything, and be honest and truthful, but it has no legal meaning."

Bruck has reason to be skeptical. While O'Toole and the prosecution may be satisfied by the jurors simply saying they can uphold "innocent until proven guilty," he realizes that he's fighting an uphill battle. At one point, he analogized the trial to asking the jury to suspend their disbelief and make the prosecution prove that pigs can't fly.

He does his best to ferret out those jurors who are just giving the answers they think the court is looking for. In response to an abstract question from nitpicky prosecutor William Weinreb, one potential juror said mechanically that sure, he'd be able to put the burden of proof on the prosecution. But Bruck didn't buy it. Butting in, he asked the juror if he'd be unable to let go of his lingering feelings of anger and if he'd need evidence to persuade him that Tsarnaev is not guilty. Before Weinreb could utter an objection, the juror confidently replied, "Yes."

The defense was satisfied number 38 wouldn't be called back. Even more worrisome than those

Even more worrisome than those potential jurors who unwittingly provide contradictory answers are those who do so with an agenda.

There was a slight hubbub among the attorneys the previous Friday, when the defense did a little online digging on a potential juror who had said all the right things on her questionnaire. Sifting through screenshots of the juror's public Twitter, the defense's brusque, small-statured Miriam Conrad pointed out that this woman had tweeted what Bruck called an "obscene statement of exultation" at the time of Tsarnaev's arrest. Her post the night of the manhunt: WOOOOHOOOOO YOU GOT TAKEN ALIVE BITCH!!!!! DONT FUCK WITH BOSTON!!!!!" The juror came to court, but got sent home after the defense exposed her apparent deception. Conrad emphasized the need to root out those who may "present one face to the court and another face to friends, family, and the public."

### "We are sailing in uncharted seas."

— David Bruck

### Do they have what it takes?

Once O'Toole is convinced that a juror doesn't have nefarious intent, he's got to determine whether he or she can conscientiously vote for either the death penalty or life imprisonment. Jurors often don't realize that the court is really asking: do you have it in you to sentence someone to death?

One mother just didn't get it. After three attempts to reword this question for her, O'Toole gave up, Bruck covered his mouth in seeming amusement, and Weinreb jumped in, seeking a real answer. He pressed, and after several nonanswers, she said "yes," convincing no one but herself.

Judy Clarke, who has successfully represented many high-profile defendants, sits next to Bruck, her law school classmate, at the table. She has saved others, like the Unabomber Ted Kaczynski and Olympic Park bomber Eric Rudolph, by gaining a deep understanding of her clients and framing them as more than their worst actions.

Here, her skill and poise are apparent as she tries to rescue Tsarnaev from ending up on death row. The duo of Clarke and Bruck try to use jurors' discomfort with the death penalty to their advantage. Clarke insinuates that it's a subjective decision — a value judgment. She wants to appeal to these people's humanity and to exploit Tsarnaev's young age, perhaps, to gun for the lesser sentence.

Exacting as usual, prosecutor Weinreb takes exception — he doesn't want jurors to be swayed by Clarke's appeals. Objecting to every framing of Clarke's questions, he argues that jurors do have an objective decision to make — they have to weigh aggravating and mitigating evidence to come to their conclusion.

### A fair trial in Boston is an unlikely proposition

"We are sailing in uncharted seas" said Bruck

He was referring to the fact that he's never heard of a jury being selected from the affected community — indeed, the courthouse is a mere two miles from the finish line of the Boston Marathon. The potential jurors that have been called in for questioning are supposed to be the

most reasonable of the initial pool of 1,373 — they've survived two rounds of cuts to make it to the hot seat. But more often than not, they still fall short.

Expecting this, the defense had tried twice to get the trial moved out of Boston, even before hundreds of potential jurors filled out questionnaires. The judge was unconvinced. Last Thursday morning, as another round of juror questioning got underway, Tim Watkins filed a third motion to change venue. It was accompanied by a 19-page memo rife with jurors' questionnaire answers and statistics, all in support of the defense's claim that a fair trial in Boston is an unlikely proposition.

According to the memo, of all the potential jurors, 68 percent already think Tsarnaev is guilty without having heard a shred of evidence in court. Some 69 percent acknowledged a connection to people or events involved in the case. Take the union of those, Watkins writes, and 1,162 prospective jurors, or 85 percent of the pool, either believe the defendant is guilty or have a self-identified connection to the case.

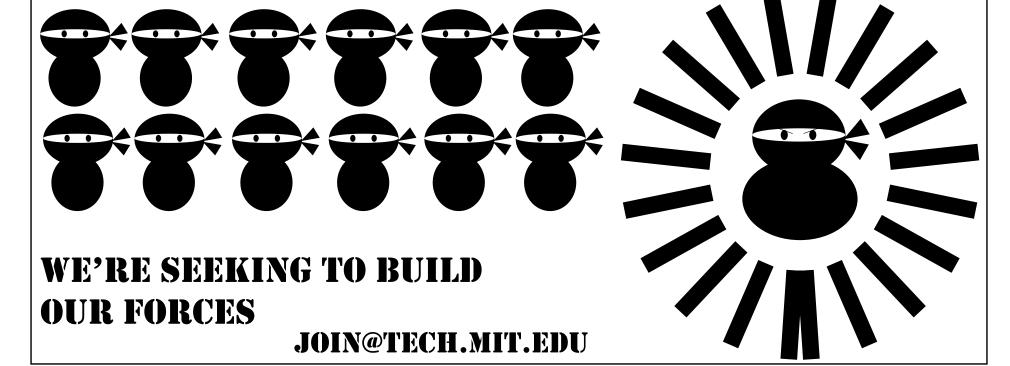
Jurors, identified only by number, were quoted as writing down that the trial is a "waste of time and money," that Tsarnaev should be publicly executed "preferably by bomb at the finish line," and, from cooler heads, that "it will be impossible for him to have a fair trial."

The emotional impact of the case was revealed as well. A mother of two described the events of April 15 as "one of the most terrifying things I had ever been through." Others described the explosions, bloodied victims, and body parts being blown off. Psychological effects lingered for many — one wrote, "I still cannot go to Boylston Street w/out having fear or anxiety." Another said three amputees were from her hometown, and "they are still going through treatment & always will be."

The government's rebuttal came days later, calling the defense's language "hyperbole" and disputing the accuracy of the statistics and cited cases.

In response, the defense brought out the big guns. Their reply to the government's opposition was graphic and personal — a bloody child on the cover of TIME magazine, and Facebook and Twitter posts they dug up from potential jurors' accounts. Appearances can be deceiving, they claimed, and voir dire is not perfect, despite what the government thinks.

O'Toole is undeterred by the constant hang-ups and setbacks, assuring the lawyers last Monday that "we're making good progress." The court has interviewed 105 jurors in eight days, whereas O'Toole had originally planned on 40 a day.



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Tuesday, February 3, 2015

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Dennis R. Levene '15 defends a Clark University player during MIT's convincing 80-57 win on Saturday afternoon.

ALEXANDER C. BOST—THE TECH

### New England Patriots clinch Super Bowl XLIX

### Malcolm Butler's interception thwarts Seattle's hopes of a last-second comeback

By Souparno Ghosh

SPORTS EDITOR

Tom Brady threw for 328 yards including 4 touchdown passes to 4 different receivers to lead the Patriots to an epic 28-24 victory over the reigning champions, the Seattle Seahawks. While Brady was instrumental in helping the Pats overcome a 10-point deficit in the fourth quarter, the game-clinching play belonged to undrafted rookie Malcolm Butler.

With 20 seconds remaining and the Seahawks a yard away from the end zone, Pete Carroll made what has been dubbed the worst call in Super Bowl history. Instead of going to Marshawn Lynch who had already run over 100 yards by then, he went for a pass play. Butler anticipated it brilliantly and with his first interception of the season gave the Patriots their fourth SB in the Kraft-Belichick-Brady era.

Despite an MVP-caliber performance it was by no way a display of perfection from Tom Brady

as he threw two costly interceptions at the beginning of each half. Russell Wilson had his struggles too, and was held to zero completions in the first quarter. The Patriots managed to take a 14-7 lead with two minutes to go in the first half. Brandon Lafell and Rob Gronkowksi scored for the Patriots while the Beast Mode got one for Seattle.

But just when it seemed the Patriots would go into the locker room with a lead, Russell Wilson stepped up, first by scrambling for a first down and then finding receiver Chris Matthews for a touchdown with two seconds remaining. With Doug Baldwin and Jermaine Kearse kept in check by Pats star corners Revis and Browner, it was Matthews who had zero catches for the season to rack up 109 yards on 4 catches and a touchdown.

The third quarter was a different story, one where the momentum had clearly shifted to the Seahawks. Baldwin for once escaped

Revis for a touchdown and a Hauschka field goal gave the defending champions a two-possession advantage going into the fourth

By then Brady had thrown two interceptions, but the clutchest quarterback in history showed his true mettle, first finding Amendola with a bullet and then Julian Edelman on a cleverly designed route to give the Patriots a 28-24 lead.

With 2:02 left on the clock and all their timeouts intact, Russell Wilson and the Seahawks needed to be sharp and clinical. Instead, they got a most bizzare catch from NFC Championship game hero, Jermaine Kearse. Russell Wilson went deep to Kearse, who was well covered by Butler. However, the rookie corner's tip-off never hit the ground and Kearse juggled but kept his concentration to get Seattle to within 5 yards and a new set of downs.

Pats fans must have had that sinking feeling. It was David Tyree

of the Giants who had in this very stadium at Glendale, Arizona, made an audacious catch to deny them the Super Bowl in 2008. However, there was more drama

Lynch got the Seahawks to the one-yard line and with a timeout and two plays remaining, Pete Carroll called a pass play to the shock of everyone watching. Bill Belichick's emphasis on situational football paid rich dividends as Butler anticipated the slant pass from Wilson from the Hawks' formation and beat intended receiver Lockette in an interception that won the Super Bowl.

Russell Wilson got off to a slow start but made timely scrambles and accurate, deep throws to get Seattle on the verge of back-to-back SB triumphs. The Beast Mode ran for over a hundred yards and looked more ominous as the game went on. Chris Matthews stepped up for the Hawks when their more heralded receivers were kept in check, but one dubious call ended

their golden chance to become the first team since the New England Patriots of 2004 to win back-to-back world championships.

The Pats had a simple game plan: get rid of the ball quickly. Vereen had 11 receptions, Edelman went for over 100 yards and Gronk won his match-ups to get those important first downs. It wasn't Brady's best performance, but once again in the times it mattered most, in the most clutch situations, he threw with pinpoint precision and rightfully bagged a third Super Bowl MVP.

Brady joined Montana and Bradshaw with 4 Super Bowls as a starting QB, tied Montana with 3 SB MVPs and went past Montana for most SB touchdown passes. With so much that has gone on over the past fortnight surrounding Deflategate and Brady's integrity openly called into question, what a way to silence the critics and make an almost indisputable case for being the greatest QB to have ever played the game!

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### Djokovic wins the Australian Open

### Serena Williams tops Sharapova

By Souparno Ghosh

SPORTS EDITOR

World No. 1 Novak Djokovic clinched his fifth Australian Open title on Sunday, defeating Andy Murray 7-6 (7-5), 6-7 (4-7), 6-3, 6-0. What looked destined for a close contest got lopsided from the third set on as Andy Murray lost the plot to lose his fourth final at the Australian Open.

With Roger Federer taken care of by Andrea Seppi in Round 3 and Tomas Berdych ousting Rafael Nadal in the quarter-finals, Djokovic was left to fight his emerging nemesis, Stanislas Wawrinka. It took another five-setter to decide the semi-final between the duo but the Serb outlasted the Swiss to avenge last year's quarter final loss.

Serena Williams defeated world No. 2, Maria Sharapova 6-3, 7-5 to clinch her sixth Australian Open title. Her latest and 19th Grand Slam triumph helped her move past Chris Evert and Martina Navratilova and claim second place in the list of most Grand Slam titles won by women in the open era. She trails Steffi Graf by three.

Sensationally this was the sixteenth consecutive time Williams has defeated Sharapova, making for one of the most lopsided rivalries in recent history. En route to the final Williams defeated American teenage sensation Madison Keys who had her best performance in a Grand Slam (Semi Finalist) that included a hard fought three-set victory over Venus Williams.

Martina Hingis won her first Grand Slam title in almost a decade when she and partner Leander Paes clinched the mixed doubles crown with a 6-4, 6-3 victory over Kristina Mladenovic of France and Daniel Nestor of Canada. Having clinched the Australian Open Singles and Doubles titles from 1997 to 1999, her last Grand Slam triumph was also at the Australian Open, a mixed doubles title with another Indian doubles star, Mahesh Bhupathi.